

DURANGO INTERAGENCY DISPATCH CENTER INCOMING RESOURCES BRIEFING GUIDE



HORN CANYON FIRE, 2003
PHOTO'S BY PAM WILSON



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GENERAL AREA INFORMATION:

The DRC zone is the SW corner of Colorado. The area extends from the Utah state line in the west; to Wolf Creek Pass on the east, and from the New Mexico state line to the south, and to the San Juan NF/BLM (about 20 miles N of the town of Dove Creek) to the north.

The zone covers a broad range of climates, fuels and topography. Major fuel types across the zone include Sage, Pinon-Juniper, Gambel oak, Ponderosa pine, mixed conifer, Spruce-Fir, and Aspen. Refer to each district's narrative for detailed fuel and topography information.

Air resources: The DRC has two contracted exclusive use Type 3 helicopters. One is based at Ft. Lewis Helibase and the other is at the Ute Mtn Ute Reservation in Towaoc. In addition, there is a Type 2 exclusive use helicopter based at the Durango / LaPlata Airport. All requests for air resources should be directed to DRC via radio or phone (970) 385-1324.

Weather: Monsoonal flow provides the main source of fire ignitions and provides the moisture that limits fire activity. The monsoons typically move into the area in the beginning of July. For the first half of July, lightning storms associated with the monsoons are typically dry and result in many fire ignitions. In mid-July, the thunderstorms become a daily occurrence in the afternoon. Once the thunderstorms produce more moisture, fire activity is reduced. However, moisture is not uniform across the zone and fires may continue to be very active during this time, especially at the lower elevations. The monsoons generally continue until the end of August or beginning of September. Typically, the zone experiences a drying trend from the beginning of September until the end of October. Fires occurring during this period may be active.

Latitude and Longitude is in degrees, minutes, seconds

Contact Numbers are as follows:

Office	Phone Fax or Cell
Durango Dispatch Center (DRC) 15 Burnett Court Durango, CO 81301	970-385-1324 (24 hr) F-970-385-1386
Columbine Public Lands Office 367 Pearl St Bayfield CO 81122	970-884-2512 F-970-884-2428
Pagosa Public Lands Office 180 Pagosa St Pagosa Spgs CO 81147	970-264-2268 F-970-264-2153
Dolores Public Lands Office 29211 Hwy 184, Dolores CO 81323	970-882-7296 F-970-882-6841
Southern Ute Agency (SUA) 575 CR 517, Ignacio, CO 81137	970-563-4571 F-970-563-9515
Ute Mountain Ute Agency (UMA) BIA Fire Mgt Bldg, 102 Chief Green St, Towaoc, CO 81334	970-565-4789 F-970-565-8838
Mesa Verde National Park (MVP) P.O. Box 8, Mesa Verde, CO 81330	970-529-5048 F-970-529-5046
Colorado State Forest Service (COS) Ft Lewis College Durango, CO 81301	970-247-5250 F-970-247-5252
Anasazi Heritage Center/CANM 27501 Hwy 184, Dolores CO 81321	970-882-5600 F-970-882-7035

Local Police and Fire Dispatch

Archuleta County Dispatch	970-264-2131 F-970-264-2551
Central Dispatch (Durango/La Plata County)	970-385-2900 F-970-385-2908
Cortez/Montezuma Dispatch	970-565-8454 F-970-565-3991
Dolores County Dispatch	970-677-2257 F-970-677-2880
SUA PD	970-5634206 / 4401

Durango Interagency Dispatch Center (DRC)

DRC GENERAL INFORMATION

The Durango Dispatch Center staff's mission is to support field operations, in particular fire management operations for several federal and local land management agencies, including:

The San Juan Public Lands Center (USFS / BLM) (Columbine, Dolores and Pagosa)	CO-SJF/CO-SJD
Mesa Verde National Park	CO-MVP
Southern Ute Agency	CO-SUA
Ute Mountain Agency	CO-UMA
Colorado State – Durango District	CO-DRS
Archuleta County	CO-AUX
Dolores County	CO-DLX
Hinsdale County	CO-HIX
La Plata County	CO-LPX
Mineral County	CO-MLX
Montezuma County	CO-MNX
San Juan County	CO-SJX

The DRC is overseen by a local board consisting of fire managers from the above Federal and State units. The center is located just off of Highway 160 West; leaving Durango going toward Cortez, turn right up to the tech center. The address is 15 Burnett Court, Durango CO 81301, in the San Juan Public Lands Center (the red brick building at the top of the hill). To access the DRC office during regular business hours, enter the building through the front doors, and check in with the front desk personnel. During non-business hours, proceed to the door on the south side of the building and knock on the windows to the left (third window is best). If our office is staffed, someone will answer. Please contact us if you have any questions, comments or concerns.

24 hour phone.....(970) 385-1324
 FAX.....(970) 385-1386
 e-mail.....codrc@dms.nwcg.gov
 DRC Web Site.....http://gacc.nifc.gov/rmcc/dispatch_centers/r2drc/

DRC is staffed seven days a week during fire season, with normal operating hours from 0800 – 1800. Extended hours coincide with periods of increased fire activity.

When contacting our office, let the person know what information you are looking for and you will be directed to the person best able to assist you.

Checking E-Mail:

For **Forest Service personnel**—you can check your e-mail by opening Internet Explorer and typing in <https://entr2b.fs.fed.us> (You will need your e-mail server); this can be done only from a Forest Service computer.

BLM Employees can access their e-mail through the internet on any BLM computer by typing in <https://lmni4.blm.gov/webmailredirect.nsf>; ask for a location of a BLM computer.

Incident response: DRC supports incidents locally (including neighbors/bordering units), regionally and nationally. Resources are mobilized through established local procedures with unit fire managers using the closest available resource concept. A contingent of resources will be maintained within DRC units that have Initial Attack potential.

Incidents are prioritized and resources are allocated to incidents based on:

- ◆ The protection of human life is the single overriding suppression priority.
- ◆ Potential to destroy property
- ◆ Values at risk.

Resources: All resources are required to notify Durango Dispatch, by radio or phone, of their status, when:

- ◆ Start of shift, departure to an assignment, arrival at the assignment, any relocations and end of shift.

Durango Dispatch normally will not go out of service until all personnel are clear of the field or in camp. For your safety, if someone does not notify Durango Dispatch that they are clear of the field, a search for those individuals is initiated to determine their status.

Aircraft will follow established notification and flight-following protocols.

DRC AREA RESOURCES: The DRC area can normally put together 1 – Type 2 Initial Attack Crew, we have a – Type 3 Incident Management Team and 15 federal engines combined from all units. There is an Airtanker Base at the Durango/La Plata Airport (DRC) and a SEAT base at the Cortez Airport (CEZ).

Initial Attack Protocols:

- ◆ DRC will coordinate with the unit FMO to mobilize resources to incidents.
- ◆ The Incident Commander (IC) will provide fire size-up information and make notification of the IC's name and any transitions that occur, to dispatch and resources at the fire.
- ◆ The IC is responsible for collecting and documenting the names of all resources on their incident (this includes individuals, equipment, etc.).
- ◆ Orders for additional resources will be made through DRC by a single designated Point Of Contact for the incident.
- ◆ IC's will provide DRC with current and updated fire status for the purpose of resource allocation and incident prioritization.

Intelligence:

Fire Reports Protocol: If you initial attack a fire and act as incident commander please submit a fully completed "Initial Organizer" form (see attached) to the local fire management office for fire reporting purposes.

Fire Intelligence Reporting Requirements:

- ◆ **Unit Morning Resource Availability Report**
 - A standard form for all field units will be used to status resources daily.
This information must be received by DRC no later than 1000 hours.
- ◆ **Daily Fire Management Briefing:** (broadcast daily at 1000 hrs)
 - Morning Fire Weather forecast, to include:
 - large scale discussion
 - Zone 207 discussion

- Zone 207 specifics (high\low temps, RH, winds, etc.)
- Local and Area Initial Attack resource status
 - Helicopters
 - Air Tankers (DRO, GJT, ABQ, BJC)
 - Single Engine Air Tanker (SEAT) (DRO, GJC, BJC, CEZ)
 - Smoke Jumpers (GJC)
 - Lead Planes/Air Attack
 - Type 1 Crews
 - Type 2 Crews
 - Type 3 Incident Management Teams
- ◆ **Afternoon fire weather forecast:** (broadcast daily at 1530 hrs.)
 - Zone 207 specifics
 - Afternoon Indices
 - Any new activity.

◆ ***Spot Weather Forecasts***

All units may electronically submit spot weather forecasts to the Grand Junction NWS office for incidents. See the Spot Weather Forecast form at the end of this document

Columbine Public Lands— *The Columbine District/Field Office can be divided into four zones. The Pinyon-Juniper zone (6,000 – 7,500 ft.), Ponderosa pine-Gambel oak zone (7,000 – 9,000 ft.), mixed conifer zone (8,000 – 10,000 ft.) and the Spruce-Fir zone (9,500 – 11,500 ft.).*

Pinon-Juniper (PJ) Zone – The lowest elevations of the zone are mainly composed of PJ fuels. Federal lands in this area are a mix of Forest Service and BLM, and the area as a whole is a patchwork of federal and private land, which brings multiple agencies (including local volunteer fire departments) into play. Fires will generally be single tree events with minimal fire behavior unless the wind increases. Wind is the main determining factor influencing fire behavior; winds 15-20 mph or greater generally trigger very active fire behavior. In many cases, active fire behavior only occurs for one burn period due to variable fuel continuity and diurnal weather changes. Gas wells are present throughout this area and should be addressed during any fire. Dependable repeaters in the PJ area includes Pargin, Sandoval, Spring Creek, and Bridgetimber (on Southern Ute)

Ponderosa pine-Gambel oak Zone – The Columbine District is much more densely populated than either of the other districts, and the ponderosa pine-Gambel oak zone is where the majority of the population resides. Urban interface issues are of much greater concern in this area than our other zones. **Moderate to steep terrain characterizes a majority of the pine-oak zone.** Fires in the Gambel oak typically exhibit low to moderate fire behavior. However, oak that has been frost damaged, oak on steep slopes or pre-heated by a fire can exhibit extreme fire behavior, especially with strong winds. The Missionary Ridge fire of 2002 burned over 70,000 acres during the course of six weeks, a great deal of this fire can be viewed from the road north of Durango and all around Vallecito Reservoir area. Fuel moistures and ERC's were at record lows/highs for much of the fire and extreme fire behavior was exhibited in much of the ponderosa pine and gambel oak. While the pine/oak fire behavior tends to exhibit moderate fire behavior, in a dry year things can change rapidly. Remember to carefully consider fuel conditions, time of day, and expected weather when determining the tactics you will use. The main repeaters for this area are Pargin, Grassy, Kennebec, Devil Mountain, and Missionary.

Mixed Conifer Zone – The mixed conifer zone makes up a large portion of the Columbine District. Vegetation within this zone varies greatly based on aspect, slope, and elevation. A mixture of Ponderosa pine, Gambel oak, Douglas fir, White fir, and Aspen make up the over story. The relative mixture is determined mostly by elevation and aspect. The lower, drier mixed conifer has a predominance of Ponderosa pine, Douglas fir and Gambel oak and is referred to as warm-dry mixed conifer. Fire behavior in warm-dry mixed conifer is of mixed severity. Moderate surface fire, occasional torching, and passive crowning occur during moderate conditions. During more extreme conditions active crowning should be expected. The cool wet mixed conifer occurs at higher elevations and on more shaded aspects; species composition consists of Douglas fir, White fir, and Aspen. Long fire return intervals and stand replacement fires are the norm in this vegetative zone, similar to the Spruce-Fir zone.

Spruce-Fir-Aspen Zone – Spruce, Fir, and Aspen dominate the higher elevations. Poor road access, steep slopes and a high percentage of wildernesses characterize this zone. This is a 100-300 year fire return interval zone; stand replacement crown fires can occur here. These fires can be very intense and can exhibit long range spotting. This type of fire behavior usually occurs during drought years when both live and dead fuel moistures are low. During average years, fires generally exhibit minimal fire growth in this zone. This zone is especially prone to heavy rain events associated with monsoons. There was one fatality that was a result of a falling Aspen tree on Missionary Ridge Fire of 2002. The Aspen tree was not "cat-faced", but its roots had been burned underground. Use of well-educated spotters is highly recommended in all felling operations. Additionally, this area is typically a good candidate for wildfires managed for resource or ecological benefit, especially since it is usually farther from the urban interface than the other two zones.

Dolores Public Lands.

Dolores District: The Dolores District/Field Office can be divided into 3 distinct zones. The Pinon-Juniper-Sage zone (5,000 - 7,000 ft), Ponderosa pine Gambel oak zone (7,000 – 8,500 ft), and the Spruce-Fir-Aspen zone (8,500-11,500ft). The Dolores FMO also has Delegated Authority for fire management operations on Canyon of the Ancients National Monument.

BLM-Canyons of the Ancients National Monument: Canyons of the Ancients National Monument is in the Pinon-Juniper-Sage zone (5,000 - 7,000 ft) with small pockets of grass and sage at the lower elevations. A large portion of the PJ zone was established as a National Monument because of the high archaeological site density. An Archaeologist must be requested through dispatch for any significant fires in which suppression may cause ground disturbance. Gas wells are present throughout the area and should be addressed during any fire. The lower elevations of the Monument are mainly comprised of dense PJ fuels. The Monument boundaries are irregular and complex. Although primarily federal, there are blocks of private in holdings inside the Monument boundaries. The Monument is surrounded by private land and is not always accessible via county roads; therefore landowner permission may be necessary before using private roads to access federal lands.

Pinon-Juniper-Sage Zone - The lower elevations of the Dolores District are mainly comprised of dense PJ fuels. This zone is a patchwork of federal and private land, which brings multiple agencies (including local volunteer fire departments) together. The non-federal lands in mesa-top country are private land and consist of PJ and large agricultural plots (mainly dry grass fields). Fire behavior in the PJ zone has changed dramatically since the Ips Beetle infestation that killed a large portion of the pinon trees throughout the area. Underneath the dead pinon overstory, cheat and other grasses have invaded the sites. Once the grasses cure, expect very active fire behavior due to the amount of dead fuel available. These fires can exhibit rapid rates of spread, long flame lengths and they burn very intensely. Low wind speeds may have the potential to cause an active running crown fire with short and moderate range spotting. With the high amount of dead, available fuel in the PJ stands, fires will behave more like a fuel model 2 or 4 than the fuel model 6, which is often used to describe fire behavior in PJ fuels. In addition, many canyons are perfectly oriented to funnel SW winds, which is the predominant afternoon wind direction in this country. There is a large amount of wildland and Industrial-urban interface in the PJ zone on the Dolores district. Interface fires become complex very rapidly because of the number of homes and other infrastructure that can be threatened. Also adding to the complexity is the numerous agencies that respond to these fires. Repeaters in the PJ zone include Goodman, Menefee and Benchmark.

Pine – Gambel Oak Zone

A majority of the pine-oak zone is characterized by gentle rolling topography that is bisected by a few major canyon drainages. Fuels generally consist of Ponderosa pine with Gambel oak in the understory. Additionally, there are pockets of pure Gambel oak (especially towards the upper elevations of this zone) and pockets of PJ in the canyon drainages (mainly south aspects). Generally, fire behavior is moderate under the pines during moderate fire weather conditions. However, very active to extreme fire behavior can occur due to low live and dead fuel moistures and alignment of slope and wind. Understory oak that has been frost killed or with low live fuel moistures can contribute to fire reaching into the crowns. Wind is an important factor here, moderate to high windspeeds may cause very active fire behavior, torching, crowning, and spotting. Fire behavior can be extreme in canyon areas due to winds (generally southwest), steep slopes, chimneys, and heavy fuel build-ups. An extensive system of roads throughout this zone is valuable for access and burnout operations. Direct attack is usually an appropriate tactic on the flat country under the pines. Drought, low live and dead fuel moistures, and alignment of slope, fuel, and wind may contribute to extreme fire behavior. In addition, much of the oak on the district may have been frost killed and mortality has also occurred due to past drought. Water sources (mainly stock ponds) are more frequent here than any other part of the forest. There are three major gas line and two major power lines running through this zone. The lines generally parallel the main Dolores-Norwood Road (FDR 526). Archaeological sites are present in this zone, and are most common near canyon rims and within a 1-mile radius of McPhee reservoir. The main repeaters for this area are Benchmark, Menefee, and Goodman Point.

Spruce-Fir-Aspen Zone: The higher elevations of the Dolores district are dominated by Spruce, Fir, and Aspen trees. This zone is characterized by poor road access, steep slopes and large mesa-tops. This is a 100-300 year fire return interval zone. Stand replacement crown fires can occur here. These fires can be very intense and can exhibit long range spotting. This type of fire behavior usually occurs during drought years when both live and dead fuel moistures are low. During average years, fires generally exhibit minimal fire behavior or growth in this zone. This zone is especially prone to heavy rain events associated with the monsoons. Aspen trees become very unstable when burned and are prone to fall. Communications can be difficult in this zone due to the rugged topography; access to repeaters is limited.

Pagosa Public Lands

- The Pagosa Ranger District/Field Office has three primary fuel types. The Ponderosa pine/Gambel oak fuel type (6500' – 8500'), pure Gambel oak sites (7,000' – 8,500'), the mixed conifer fuel type (8500' – 10,000'), and finally the Spruce/Fir type (10,000' – tree line).

Pine – Gambel Oak - A majority of the pine-oak zone is characterized by gentle rolling hills. Fuels generally consist of Ponderosa pine with Gambel oak. Additionally, there are pockets of pure Gambel Oak. Generally, fire behavior is moderate under the pines with some isolated pockets of high fire behavior due to fuel jackpots and topography variances. Roads throughout this zone are valuable for access. Fires in the Gambel oak typically exhibit low to moderate fire behavior.

However, oak that has been frost damaged, on steep slopes, or pre-heated by a fire can exhibit extreme fire behavior, especially with strong winds. Archaeological sites are present in this zone.

Mixed Conifer - The mixed conifer is characterized by moderate to steep terrain. This zone has moderate to low access and is the heaviest recreated zone represented on the district. The mixed conifer is comprised of both wet and dry sites depending upon elevation and aspect. Fuel characteristics in this zone leads to “patchy” burning, isolated and group torching, and spotting.

Spruce-Fir-Aspen Zone - The higher elevations of the Pagosa District are dominated by Spruce, Fir, and Aspen. This zone is characterized by infrequent starts, poor road access, steep slopes, and extensive deadfall. Fires generally exhibit minimal fire behavior or growth in this zone. This zone is especially prone to heavy rain events associated with the monsoons. Fires in this zone are preferred to be managed for resource benefit. Insect attacks are increasing in this zone, creating landscape scale standing dead stands. Increased fuel loading and falling snags are increasing hazards in this zone.

Mesa Verde National Park

Recent wildfires have reduced the larger Pinon and Juniper fuels in some locations, and have provided grassy areas to potentially establish safety zones after appropriate mitigation. None of the resources in this park are worth injury or the loss of life. Plan for lookouts and construct escape routes and safety zones as needed; other safety reminders include:

Drive defensively and be aware of park visitors and animals on the roads.

Drink plenty of water

Wear sunscreen

Hazardous terrain includes cliffs, steep slopes, loose rocks etc.

Although rare, expect the chance encounters with rattlesnakes, scorpions and stinging insects.

Fire Management Facilities: Fire Management and the Cache are located in the CCC loop area, just off the entrance road at mile marker 19; facilities are small and can become congested easily. Crews and equipment are instructed to stage at Morfield Campground or at the Farview area. If directed, stage crews and equipment in the parking lot west of the Fire Management Office.

Mesa Verde Helitack. A Type 3 helicopter is based at Ft Lewis, CO for fire suppression, prescribed fire or SAR operations; for safety purposes, only enter the helibase under the direction of helitack personnel. At that time you will be fully briefed on safe procedures for working with the helicopter; full PPE is required at all times at the helibase.

Fire History: Mesa Verde has a history of frequent lightning caused fires; the vast majority of these fires are singletree to ¼ acre in size. However, the park has been subjected to large-stand replacement fires occur every 5 –10 years. In 2000, the Bircher and Pony fires burned over 28,000 acres; other agencies in the area have experienced similar fire incidents.

Local Fuels: The primary plant communities are Pinon-Juniper, mountain shrub, and small pockets of Douglas fir and Ponderosa pine. The Pinon-Juniper is mostly dense mature stands with fuel loading at 35-60 tons per acre. 10-30% of the fuel loading is dead fuel. Surface fuels in this type are patchy, so the crowns are the primary carrier of fire. These fires have all the characteristics of extreme behavior including torching, crowning, spotting, and rapid rates of spread.

The mountain shrub communities are dominated by Gambel oak; this type is adapted to fire and contains heavy fuel loads. A common hazard in oak involves re-burns due to pre-heating from burning surface fuels. Fires in the shrub communities can be flashy with high rates of spread, especially on the steeper slopes in the park.

Douglas-fir stands are found in shady areas of canyons or on north aspects. Fires that originate in this type usually have slow rates of spread and moderate behavior. Large fires that start in the other fuel types will often burn into the Douglas fir with extreme behavior. Other land agencies in the area have similar fuel types; however, always ask the locals about their particular conditions.

Fire Dispatch and IA: Initial attack fires in and around the park are dispatched through Durango Dispatch. Fires are detected through fire lookouts, aerial detection, and the general public. Fires are prioritized and resources dispatched to the fires. Commonly, crews are broken into modules and flown to fires using a helicopter for quick action on initial attack fires. Crews may also access fires either on foot or using vehicles. A fire line qualified archeologist may accompany fire crews to the line. During times of likely fire occurrence (i.e., after lightning storms) crews will be pre-positioned at strategic locations for quick mobilization. Crews must always be fire-ready since they may be dispatched at any time. This includes having gear for staying out overnight.

Communications: The crew packet contains a list of radio frequencies, call signs, and phone numbers used in the park and Durango Zone.

Supplies: Crews should arrive fire-ready with complete PPE, tools, and overnight gear. Our cache is very limited and it is not equipped to supply large numbers of people. We will do our best to replace broken or worn items within reason.

Camping: The park campground at Morfield provides camping facilities for crews. The campground has showers, phones, and a store.

Meals: Generally, crews will drive to various local restaurants for breakfast and dinner. Sack lunches will be provided for crews.

Mesa Verde National Park There are strict laws against destroying or removing any objects in the park. As you work throughout the park, you may find pieces of pottery or other objects. You can look at these objects, but please remember to replace them where they were found so that others may enjoy them.

Southern Ute Agency

The Southern Ute Reservation is comprised predominantly of the Pinon-Juniper-Sage and pine-Gambel oak fuel zones, yet does have a mixed conifer component at its highest elevations along its eastern boundary. The Pinon-Juniper fuel zone at lower elevations will burn readily when conditions are dry and winds exceed 20 mph. The pine zone at mid elevations is the most fire prone of the fuels and is present in often overcrowded and overstocked stands throughout the reservation. The mixed conifer fuels are located on top of Archuleta Mesa near the Jicarilla Apache Reservation in NM, and predominate on the north facing slopes and ridge tops.

The Southern Ute Reservation is a checkerboard configuration of land ownerships between private land and the Southern Ute Tribal Land. Typically, valley bottoms and level areas were homesteaded and are now private lands. Subsequently, much of tribal property consists of steep and often rugged terrain. An increasing urban/interface fire situation is developing in the privately owned areas within the reservation.

Due to the steep and rugged terrain, many of the fires occurring on the reservation are not accessible by vehicle.

Firefighter Exclusion Area - *An underground coal seam runs beneath a portion of the west central part of the reservation and is an area where hydrogen sulfide, methane and carbon monoxide levels have the potential to reach dangerous levels. This area has been deemed a firefighter exclusion zone and all fires within the boundary (see attached map) are fought with aerial resources only. The exclusion zone is generally located west of Highway 140 between Iron Springs Gulch and Valencia Canyon, extending from the New Mexico border roughly ten miles to the north. A buffer zone one mile east and west of the exclusion zone requires gas monitors for on the ground fire personnel.*

All firefighting personnel should be familiar with the response protocols for fires in the vicinity of oil or gas wells, or in the exclusion area.

Ute Mountain Ute Agency— Four geographical areas characterize the Ute Mountain Agency. The area north and west of Towaoc comprises the Sleeping Ute mountain range. This area has the greatest variation in elevation and topography on the reservation. Slope steepness can be extreme in this area. Vegetation varies from the typical Pinon/Juniper or sage at the lower elevations to Ponderosa pine and Douglas fir at the higher elevations. Gambel oak is scattered throughout the area and is concentrated in draws and northern aspects. Large oak patches are scattered throughout these areas. Water is available from the relatively numerous stock ponds present throughout the area, with permission.

Flat mesas with limited access characterize the area to the east of Towaoc, bordering Mesa Verde National Park, and north of Mancos Canyon. The remaining access is by helicopter or two to three hour hikes. Vegetation is limited to Pinon/Juniper. Canyons between the mesas can be characterized by steep escarpments with enclaves of Ponderosa pine and Douglas fir. This area is within the Ute Mountain Tribal Park and has an abundance of archaeological sites. Care must be taken with dozer or aerial retardant use. Water is obtained from the Mesa Verde National Park from a dipping site on Chapin Mesa, coordinate with dispatch.

The area south of Mancos Canyon is moderately roaded and dominated by the typical Pinon/Juniper. This area extends into New Mexico where vegetation becomes sparse and fire occurrence is minimal. There are extensive “chained” areas where trees were cleared in the 1960’s that are now comprised of sagebrush flats with young Pinon and Juniper now becoming established. The old heavy fuels can be abundant in some of these areas. Water sources are extremely limited and consist of stock ponds that may or may not have water.

The area to the south of Towaoc and west of Sleeping Ute is characterized by sparse vegetation, due to limited rainfall and high grazing activity. During above average rain years, grasses, especially Cheat grass and Sage provide fuels for fire spread. Ungrazed area on the right-of-way along Highways 491 and 160 provides fuel for human starts as a significant cause of fire adjacent to these highways. Water is limited to the irrigation canal when enough water is allocated to the Tribal Farm.

Pinon pine and Juniper provide the typical fuel type over much of the reservation. Fires are generally limited to single tree events. The exception occurs during wind events or plume dominated events. This can be especially hazardous during drought conditions or when the monsoons do not develop during the summer months.

Gas wells are present on the southeast corner of the reservation known as the Barker Dome area. Some are “dirty wells” that occasionally vent hydrogen sulfide, a potentially deadly gas. Concentrations are normally well within guidelines but the presence of this gas must be considered for all operations. These wells are identified by signs and the presence of windsocks. Fires within the Barker Dome area should be suppressed with personnel carrying single gas monitors and resource bosses and/or safety officers monitoring with multi-gas monitors. All suppression efforts will be coordinated through UMA Fire Management and Durango Dispatch, contact UMA Fire Management for more information.

General Safety Message

- **Terrain:** The topography in the zone is some of the roughest in North America. Over six peaks in the zone exceed 14,000 feet in elevation and many exceed 12,000 or 13,000 feet. This dramatic topography can cause problems for fire operations; attention should be paid to:
 - ◆ **Altitude sickness:** Acclimate slowly and know the symptoms and treatment.
 - ◆ **Severe weather:** Weather over the mountains can develop quicker than expected; cases of hypothermia, even in the summer are not uncommon. During the monsoon season, lightning, hail and flash flooding can catch people by surprise.
 - ◆ **Air operations:** Always consider the high altitudes you are operating at and the possibility of unstable/unexpected weather in the vicinity of high terrain.
 - ◆ **Communications:** The rugged terrain makes radio and cell phone communications difficult. Learn the radio system before you have emergency traffic.
- **Driving:** Southwest Colorado has the highest rate of vehicle collisions with deer and elk in the state of Colorado. Be alert to this fact particularly in the evenings and around sunset and sunrise.
 - ◆ During fire season, a high percentage of the traffic on the highways consists of out-of-area drivers. Be patient and expect the unexpected.
 - ◆ Mountain roads may not be built for heavy engines or other large vehicles; plan ahead. Wet, steep mountain roads may become unstable and may slide off with excessive weight; check old bridges.
- **Fire Behavior:** Oak brush does not look like an especially dangerous fuel when it is green, but has been fatal to a number of firefighters over the years, including those on Storm King Mountain. Oak brush may be stressed and dry even though it is green. Be especially alert after frost conditions as the fuels may have dried out, yet will still appear green.
- **Hazardous Gases:** There are pockets of hydrogen sulfide, methane and carbon monoxide gas on the Southern Ute reservation (see attached map). Contact Dispatch if you have questions about these areas.

**SEE INTERAGENCY STANDARDS FOR FIRE AND FIRE AVIATION
CHAPTER 7 – SAFETY AND RISK MANAGEMENT**

Oil and Gas Hazard Watch-Out Situations

Oil and gas fields have hazards that, when encountered, may pose threats to wildland firefighters. The large, open spaces created by well pads and rights-of-way may be effective areas for firefighting operations, staging areas, and safety zones yet the presence of hazardous materials, high pressure pipelines and industrial equipment can create a dangerous environment for untrained personnel. The following is a checklist of actions to take when performing wildland fire operations in an oil and gas environment.

- ◆ Use caution when driving unimproved roads in the oil and gas field. Be aware of industry traffic and be on the look-out for oil and gas facilities and infra structure. Avoid backing if possible and use a spotter when necessary.
- ◆ When arriving on scene, seek out oil and gas personnel to get information on condition of the surrounding oil and gas field. Notify dispatch center of the owner, type of oil and gas facility, location in reference to the fire and any other information available pertaining to the oil and gas field and the fire.
- ◆ Be aware of toxic gases that may be present around oil and gas facilities and monitor personnel for gas exposure symptom
- ◆ **Hydrogen Sulfide (H₂S)**-Toxic gas heavier than air. Rotten egg smell in low concentrations. **Symptoms include:** Eye irritation, nose and throat irritation, headache, dizziness, nausea, cough, difficulty breathing, loss of smell, vomiting.
Actions to take if gas is detected:
 - Immediately move out of area – either upwind or uphill, notify chain of command.- If symptoms occur: Immediately move out of area – either upwind or uphill, notify chain of command and seek medical attention if needed.
- ◆ **Methane (CH₄)** – Principle component of natural gas. Lighter than air so the gas rises and it is odorless, colorless and flammable. **Symptoms include:** Unlikely will cause physical problems in open environment yet poses a fire risk in high concentrations from cell phones, cameras, etc as ignition sources.
- ◆ Beware of enclosed buildings/vehicles if gas is detected.
- ◆ Be aware of oil and gas facility hazards:
- ◆ Engines should avoid rights of way due to exposed pipes and/or pipelines.
- ◆ Park at least 20 feet away from facilities and equipment.
- ◆ Avoid open pits/dumps which may contain discharging gas.
- ◆ Avoid oil and gas pumping equipment (pump jacks, well heads, etc) as they may leak toxic and/or flammable gases.
- ◆ Before starting dozer operations, ask your local dispatch to notify the appropriate utility representative.
- ◆ Do not assume pipelines are buried deeply or are directly under their markers.
- ◆ Dozer operators and bosses need to be extremely cautious.

Maintain a high level of situational awareness as this list may not include all of the hazards present.

Standard Operating Procedures -Type 5 Incidents

Type 5 Fires: Low complexity, single resource response and short duration.

Encourage communication between oil and gas field personnel and responding wildland fire personnel.

The Incident Commander (ICT5) will ensure that all personnel on the fire are qualified for the position they are performing. All other non-qualified personnel will be notified to disengage from the fire.

Standard Operating Procedures—Type 1 – 4 Incidents

Type 4, 3, 2 & 1 Fires: Moderate to high complexity, numerous and non-local resources, multiple day duration.

The Incident Commander will notify Durango Dispatch of the presence of oil and gas infrastructure and the owner of the infrastructure near or threatened by the fire perimeter.

Durango Dispatch will contact the Oil and Gas Industry Liaison who in turn, will notify the safety representative of the owner company.

If dozer operations are anticipated, Durango Dispatch will notify the appropriate utility representatives for required actions – ie. line locate, power shut off, etc.

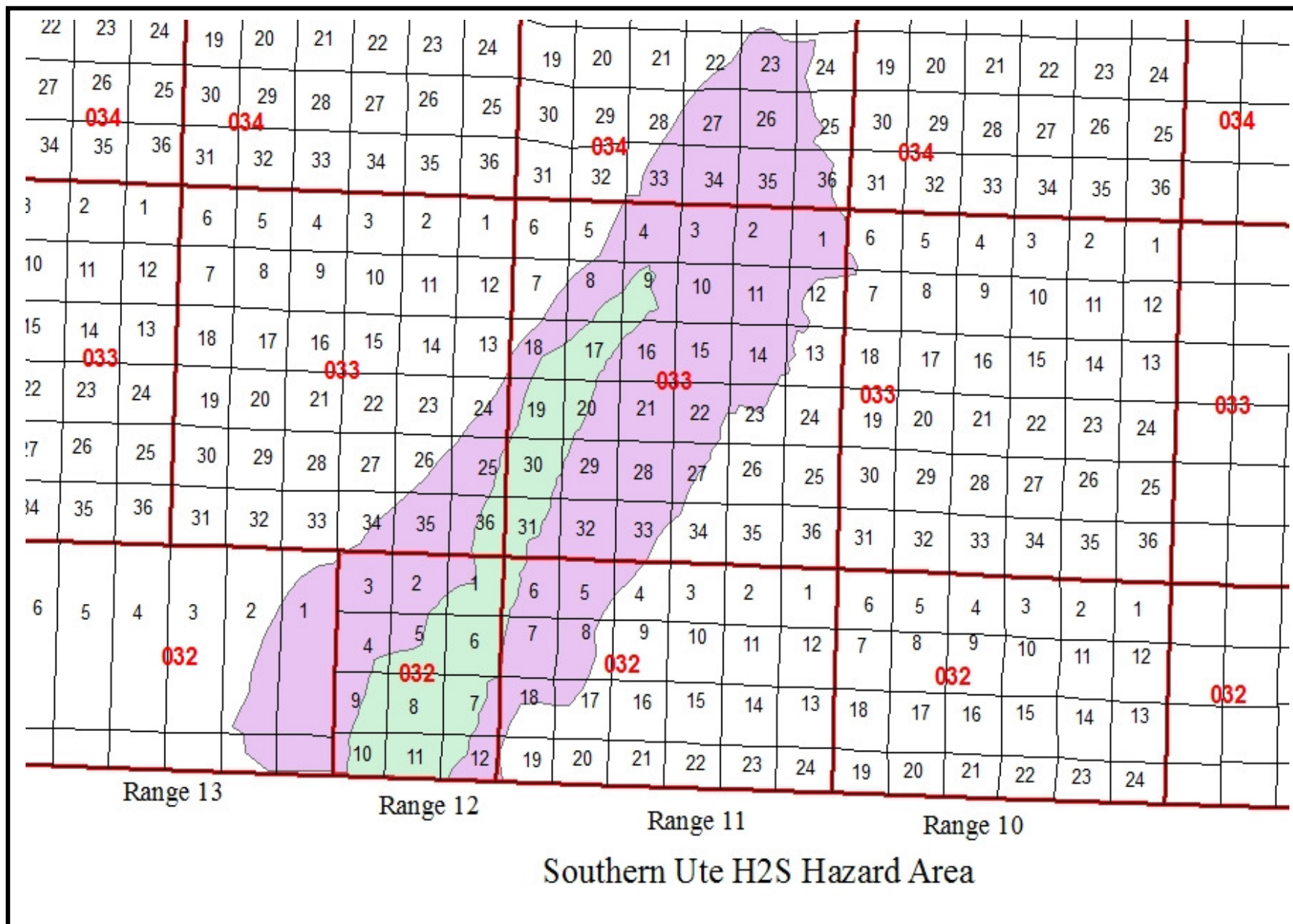
The oil and gas company safety representative should be available to the Incident Commander for advice and information regarding Oil and Gas industry issues

MAP ON FOLLOWING PAGE

Coal Seam Hazardous Gas Areas

Firefighter Exclusion Area - An underground coal seam runs beneath a portion of the Southern Ute Agency Lands. This is an area where hydrogen sulfide, methane and carbon monoxide levels have the potential to reach dangerous levels. The hazards exist when the ground is disturbed, such as building a fire line.

Fires within the Southern Ute Exclusion Zone will generally be suppressed using aerial resources with ground resources monitoring the fire from a safe distance outside of the Zone. Fires within the Buffer zone will be suppressed with ground forces carrying single gas monitors and resource bosses and/or Safety Officers carrying multi-gas monitors. Contact SUA Fire Management for more information.



Hydrogen Sulfide Gas (H²S)

Oil and Gas production across the western United States has increased dramatically and can have an impact on fire suppression operations and expose fire personnel to health hazards. Many parts of the western United States also have natural occurring coal seams that can also produce potentially toxic gases as well.

- Fire personnel can be exposed to hydrogen sulfide gas (H²S) which is a commonly expelled during oil and gas extraction operations and some coal seam seeps. H²S is a highly toxic, flammable, colorless gas produced by decaying organic matter and has a characteristic odor of rotten eggs at low concentrations; however, the sense of smell is paralyzed at airborne levels above 50 to 150 ppm. At higher concentrations, H²S can result in respiratory paralysis, asphyxial seizures, and death. Characteristics of a fatal exposure are rapid "knock down", respiratory depression, tremors, blurred vision, cyanosis, seizures and tachycardia. H²S vapor can also travel considerable distances to a source of ignition and gives off corrosive and poisonous and flash back explosively oxides of sulfur upon combustion.

- To avoid exposure to H²S, here are some DO's and DON'Ts concerning fire operations near oil and gas operations:

- DOs:

- If you are responding to a known oil and gas pad or coal seam areas, DO contact local petroleum engineer or resource advisor.
- If your unit has known oil and gas operations or coal seams, DO ensure that every firefighter is provided with training on H²S.
- If you happen upon a remote oil and gas pad area, DO cordon off the area with flagging and deny entry and DO modify suppression tactics to avoid the area.
- DO avoid low lying drainage, ravines, and gullies near oil and gas pads and coal seams as they tend to accumulate higher air concentrations of potentially toxic gases, especially during early morning hours when air has the tendency to sink.
- If you suspect that someone has been exposed to H²S, DO seek medical care immediately at the nearest hospital.

- DON'Ts:

- DON'T locate fire camps, ICPs, or helispots on or near oil and gas pads.
- DON'T depend on sense of smell for warning - H²S causes rapid deterioration of sense of smell.
- DON'T attempt fire suppression on or in close proximity to oil and gas pads. Local petroleum engineer or resource advisor may recommend safe working distances and firefighters may also be given H²S monitors when working near oil and gas pad operations and/or coal seams.
- DON'T wait to seek medical attention if H²S exposure is suspected.

Wildfires in/near Oil and Gas Fields – SEE CHAPTER 7, Interagency Standards for Fire and Fire Aviation Operations.

As energy production increases across the country, many firefighters are responding to an increasing number of wildland fires in areas with oil and gas production, exploration, and development. As with any wildland fire operation, firefighters must maintain situational awareness at all times; however, areas of oil and gas production create an environment where firefighters may not be cognizant of potential hazards that could be encountered in these areas. First and foremost - Only engage the wildland fire when it is safe to do so and recognizing hazards in the oil field should be a part of the incident size up prior to engagement/suppression action.

- Driving hazards are amplified by narrow one lane roads and high amounts of large truck traffic. Roads often are dead-ended.
- Well sites and other facilities with flammable and/or hazardous materials in tanks, pits or other containers.
- Pipelines are common with some on the surface or buried just below the surface. *This is a watchout situation for dozers, engines and other equipment.*
- Poisonous gases including hydrogen sulfide (H₂S).
- Use and storage of explosives is common in oil fields. These explosives may be detonated using two-way radio frequencies. Two-way radio use is not allowed within 500 feet of these areas.
- Untrained and unequipped personnel may be trying to suppress the fire, often this is done with heavy equipment.
- Construction of raised pads could contain buried woody material; this material can be ignited and burn underground.
- Failures of production facility valves, gauges and fittings may result in leaks, fire, explosions, hazardous material spills and toxic vapors.
- Vents on oil and gas infrastructures often release pressure. The gases vented may be highly flammable and have the potential to ignite if a flame is nearby. Stay clear of these areas if “venting” is encountered.
- Hazard Mitigations As with any wildland fire operation; risk management, safety guidelines and practices should be implemented (e.g., LCES, Fire Orders) prior to and during wildland fire operations. Additional mitigation measures should be considered for suppression efforts in or near oil and gas production:
- Identify hazards – agency resource advisors/oil and gas specialists can be of great assistance.
- Ensure oil and gas operators in that area have been contacted - utilize dispatch to make contacts if necessary.
- Firefighters should limit their time near oil and gas infrastructures.
- Firefighters should never manipulate any valves, fittings, etc. in any way.

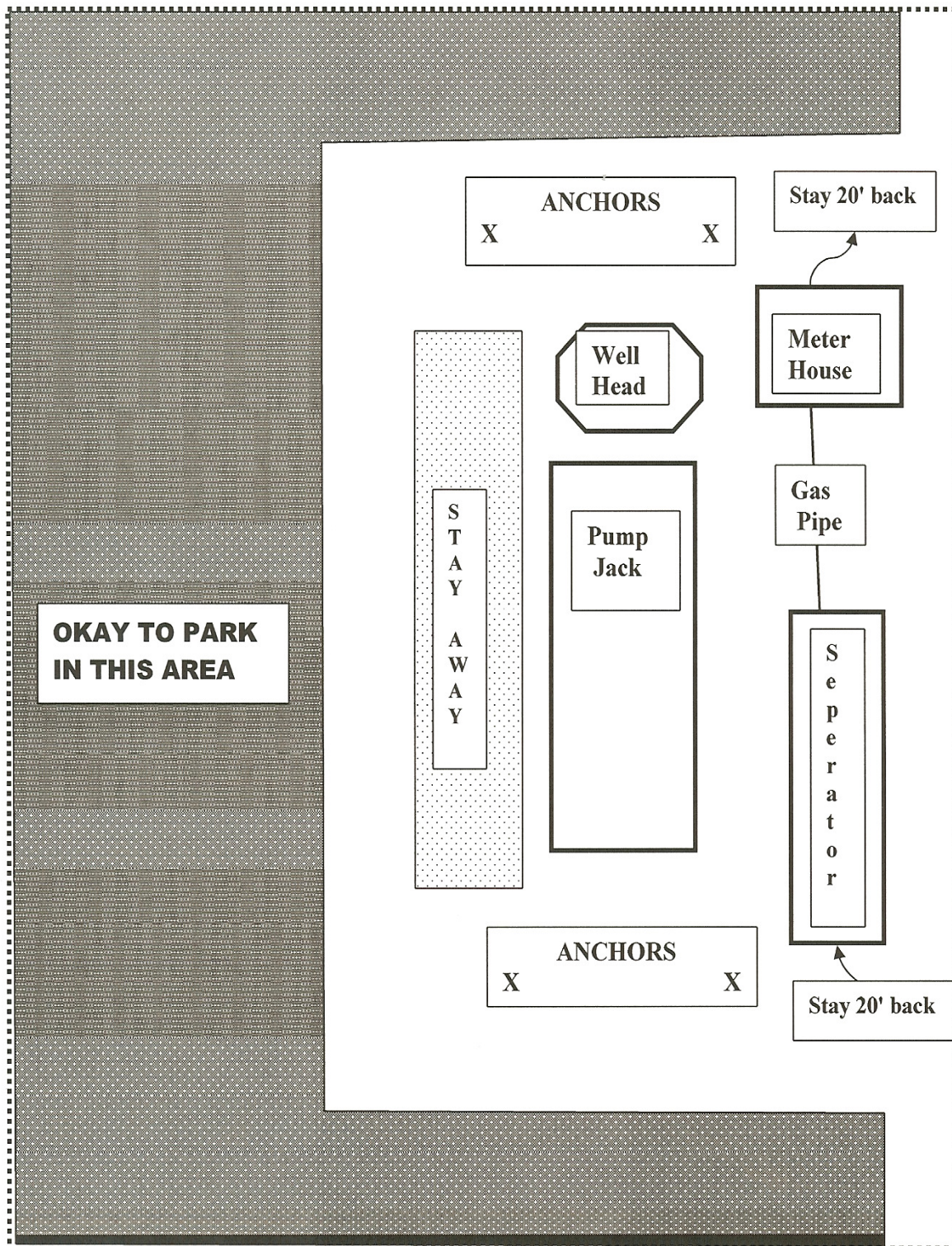
Ute Mountain Ute Barker Dome:

The Barker Dome area is known to have gas wells with H₂S present and is referred to as “stinky gas” wells. The area covers the southeast corner of the Ute Mountain Ute Reservation. Some are “dirty wells” that occasionally vent hydrogen sulfide, a potentially deadly gas. Concentrations are normally well within guidelines but the presence of this gas must be considered for all operations. These wells are identified by signs and the presence of windsocks. Fires within the Barker Dome area should be suppressed with personnel carrying single gas monitors and resource bosses and/or safety officers monitoring with multi-gas monitors. All suppression efforts will be coordinated through UMA Fire Management and Durango Dispatch.

BARKER DOME HAZARD AREA



SAFE PARKING AREAS FOR FIREFIGHTERS AT GAS WELLS



- ` Stay Outside the Anchor Pattern
- ` Stay Away from Equipment that is Outside of Anchors by 20 feet.

Pocket Cards— The Fire Danger Pocket Card is a tool based on the National Fire Danger Rating System (NFDRS) to help you (the firefighter) develop an awareness of the current fire situation that you are about to step into. The prime objective of the NFDRS is to provide a measure of the seriousness of local burning conditions. The Pocket Card provides a visual reference of those conditions and how they compare to previous fire seasons.

We have created a Fire Danger Operating Plan that divides our zone into two sections, Lower Zone and Upper Zone. Our Pocket Cards are based upon the two zones and on three fuel type, and not fuel model. The fuel types used are:

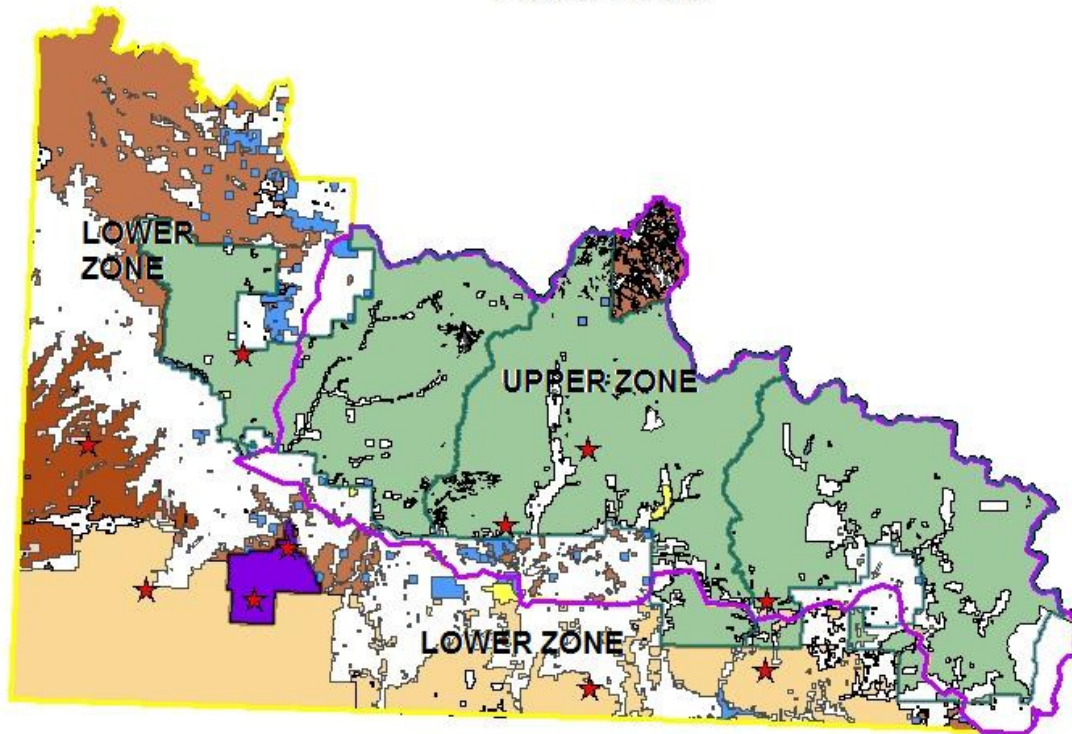
Lower Zone:

1. Grass based upon Fuel Model A, Western Grass.
2. Brush, is based upon fuel models B-Mature Brush, F-Oak Brush, and T-Sagebrush.
3. Timber, is based upon fuel models C-Ponderosa Pine, G-Pinyon/Juniper w/Heavy dead and H-Pinyon/Juniper w/light dead.

Upper Zone:

1. Grass, same as lower zone.
2. Brush, same as lower zone.
3. Timber is based upon fuel models C-Ponderosa Pine, H-Pinyon/Juniper-Light Dead, and U-Other Conifers and includes Aspens.

DURANGO INTERAGENCY DISPATCH CENTER FIRE DANGER OPERATING PLAN ZONE MAP



What is Fire Danger Rating?

- ◆ A decision *aid* that describes the factors - fuels, weather and topography - which affect the initiation, spread and difficulty of control of wildfires on an area.
- ◆ We emphasize *aid* because fire danger rating information is not the answer by itself; it must be considered along with local knowledge of an area.

What will the Fire Danger Pocket Card do?

- ◆ The Fire Danger Pocket Card is useful in initial fire size up, initial attack and extended attack.
- ◆ The Fire Danger Pocket Card gives firefighters a general indicator of the potential for the fuels to support extreme fire behavior and of the difficulty of control.

What won't the Fire Danger Pocket Card do?

- ◆ The Fire Danger Pocket Card will not provide site specific fire behavior predictions.

How Do Firefighters use the Fire Danger Pocket Cards?

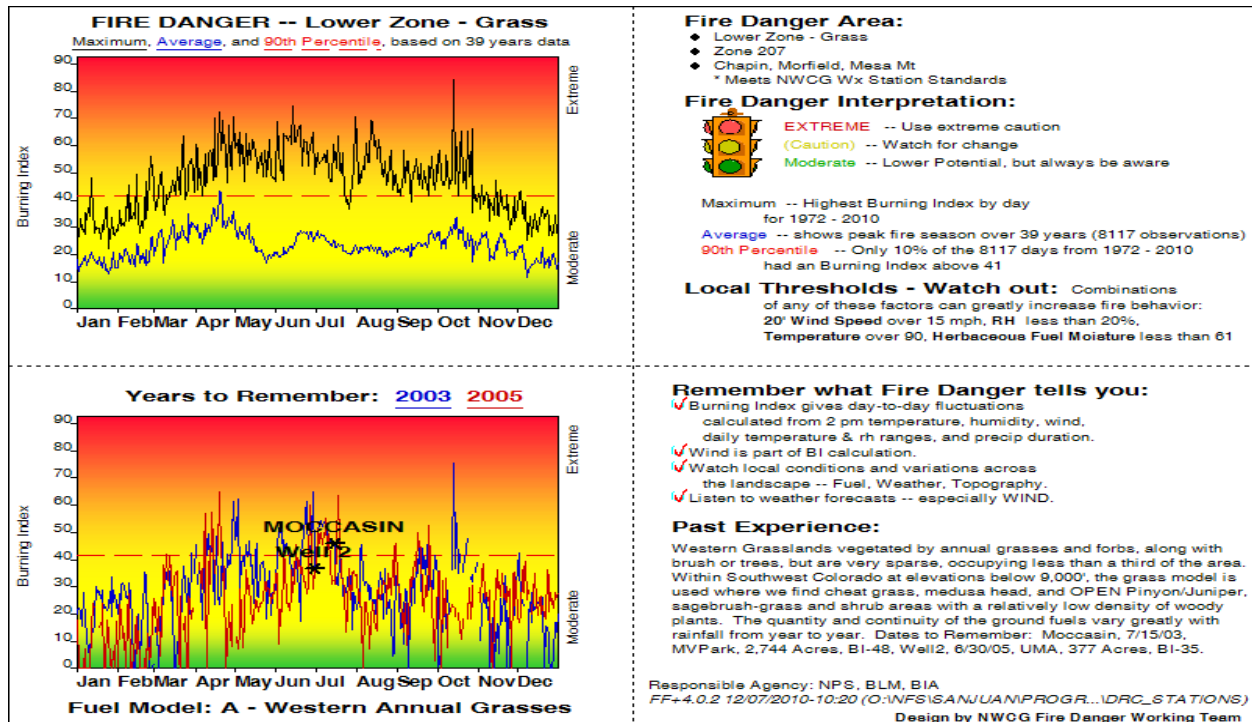
- ◆ Compare current and predicted local fire danger to historical local fire danger in order to enhance situational awareness.
- ◆ Use this information to be aware of indicators that predict the potential for extreme fire behavior.

Daily Weather Indices: The DRC area daily indices will include the fuel type, average; energy release component (ERC) and burning index (BI), the fire danger rating will complete the indices.

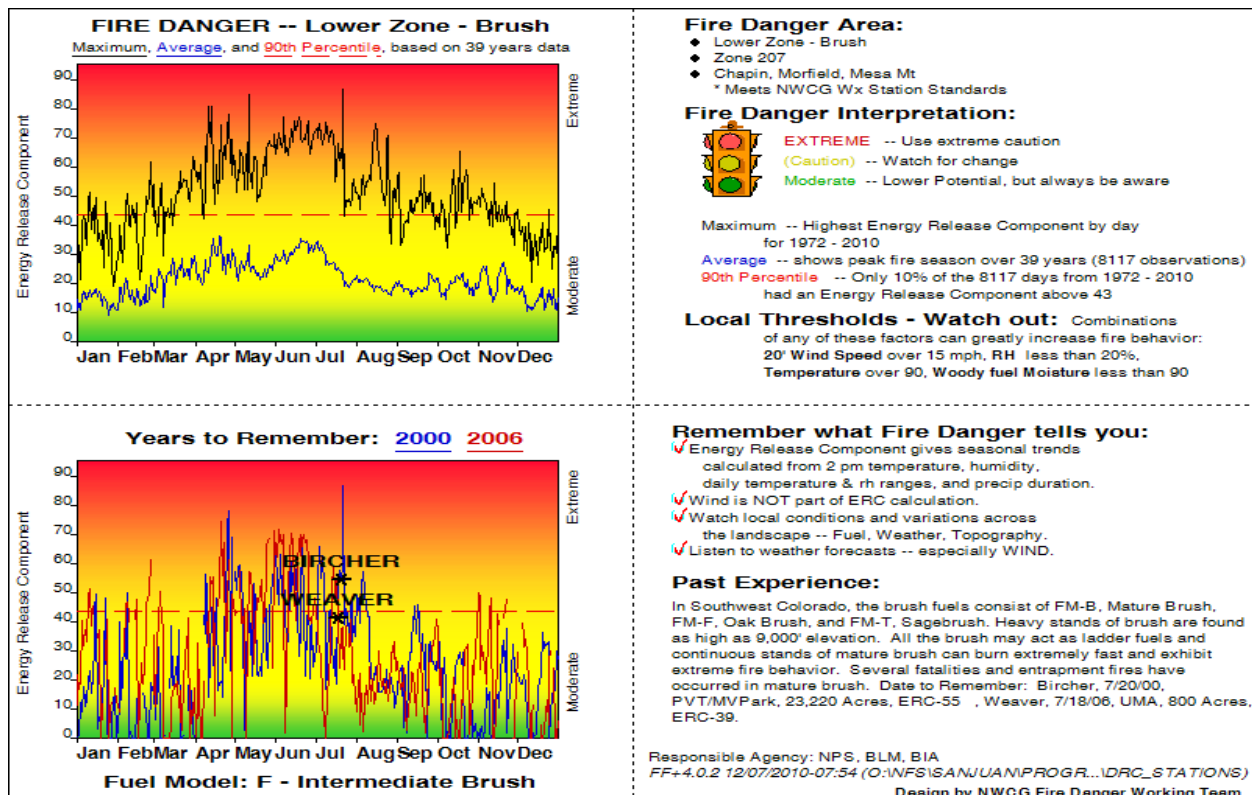


LOWER ZONE POCKET CARDS 2011/12

GRASS FUEL TYPE



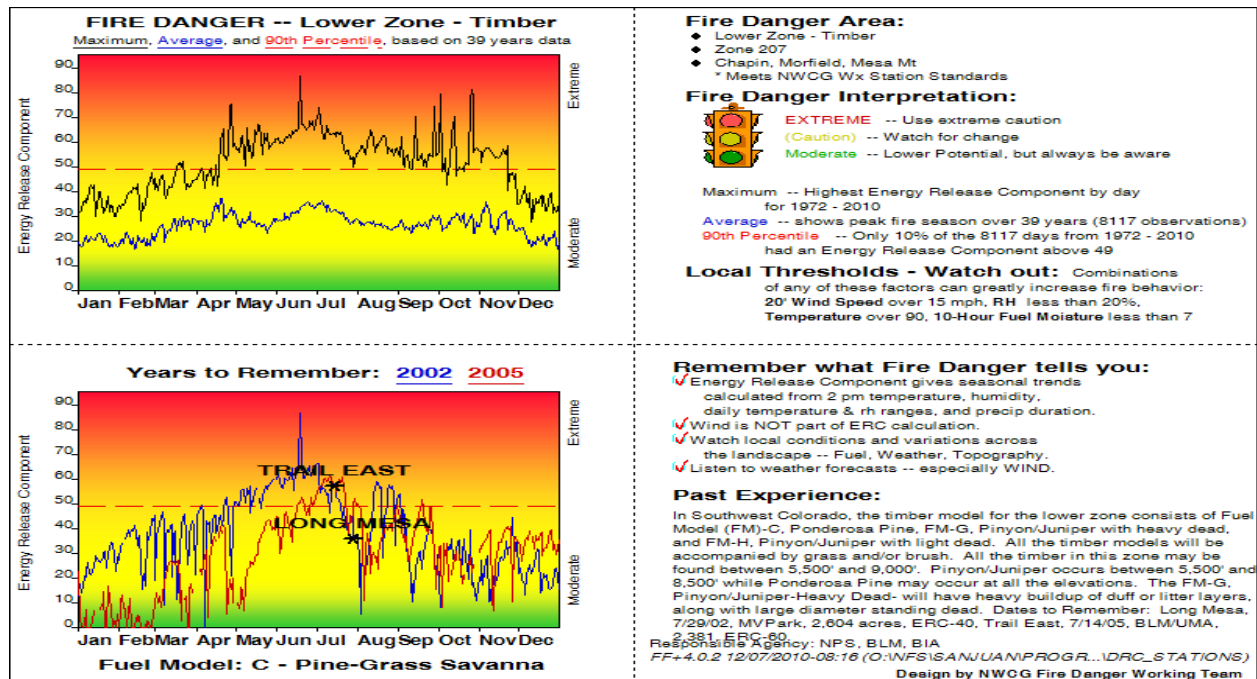
BRUSH FUEL TYPE



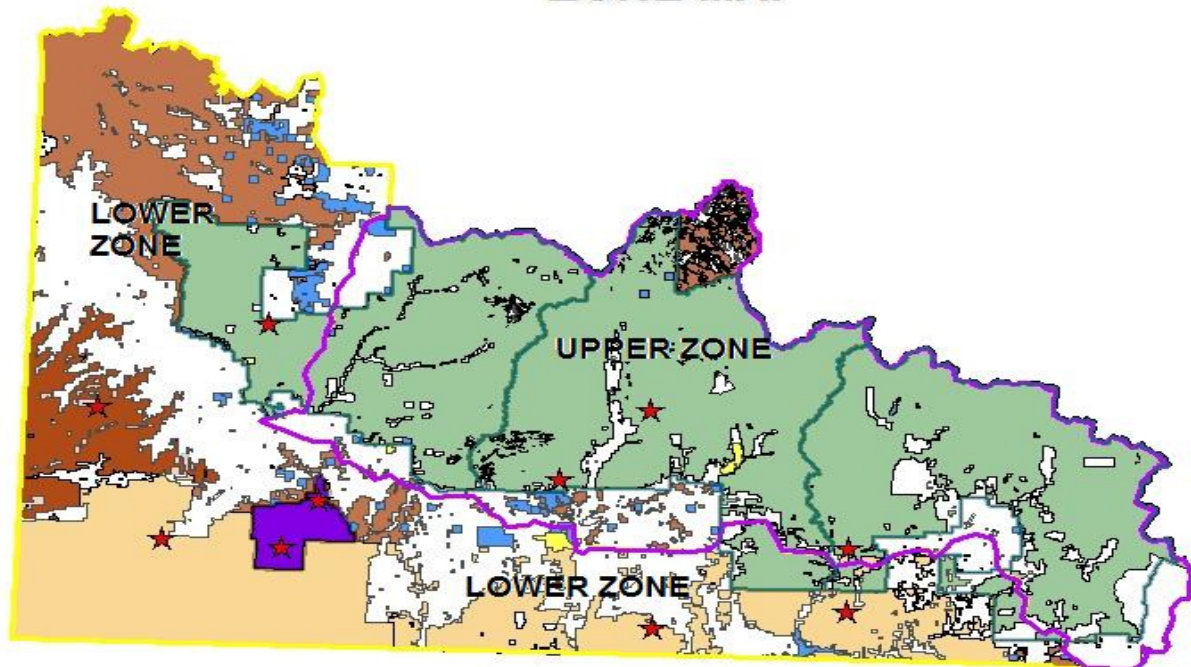
LOWER ZONE POCKET CARDS 2011/12



TIMBER FUEL TYPE



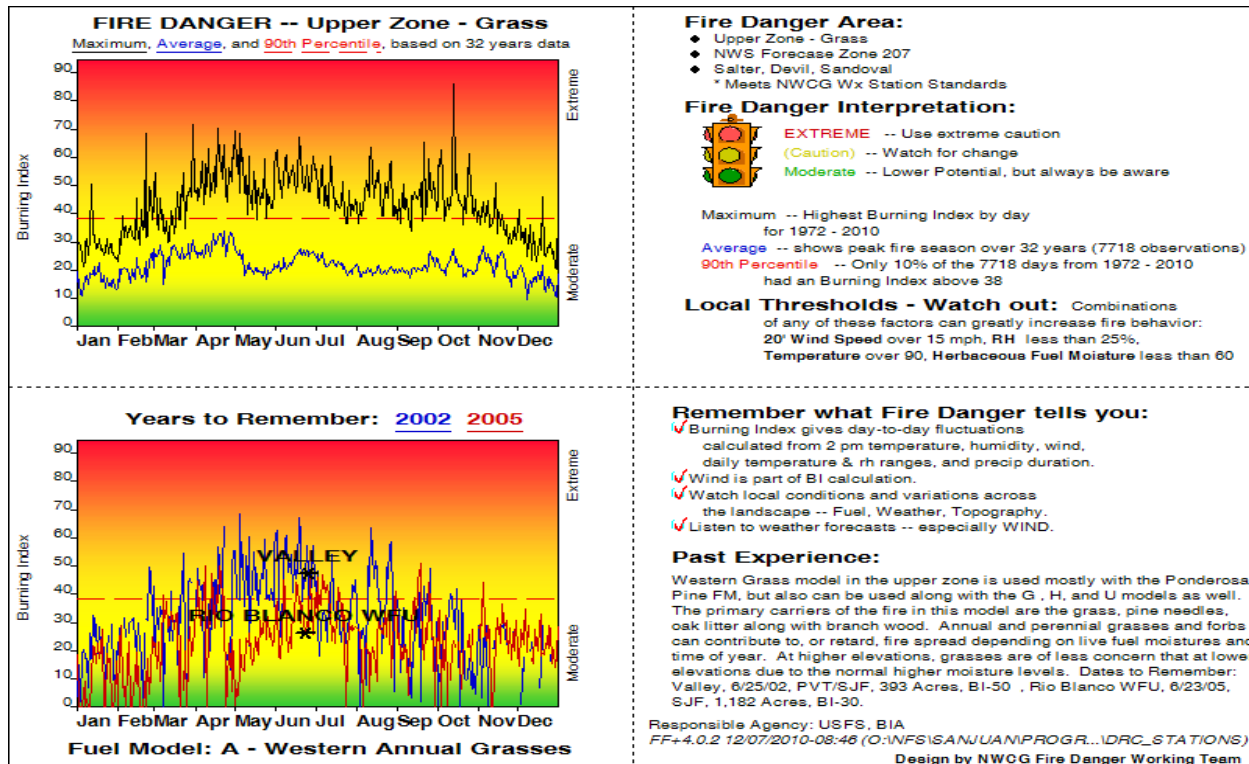
DURANGO INTERAGENCY DISPATCH CENTER FIRE DANGER OPERATING PLAN ZONE MAP



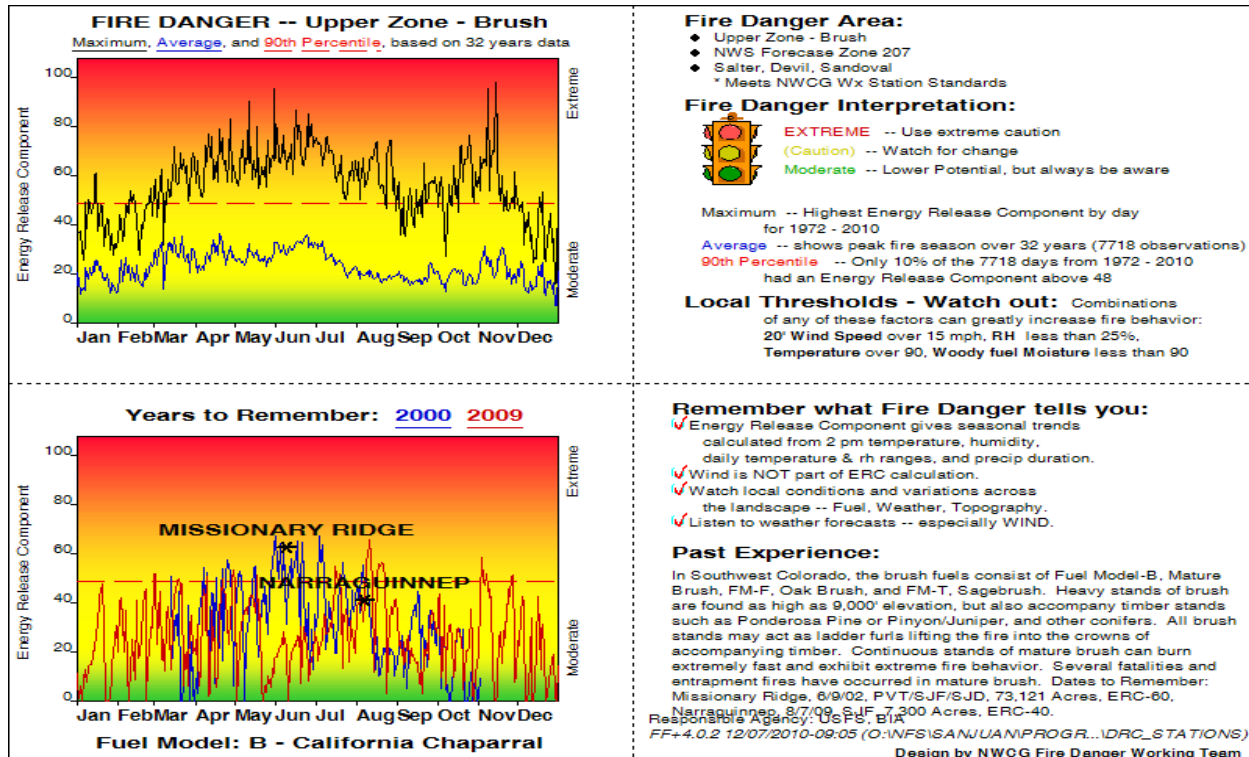


UPPER ZONE POCKET CARDS 2011/12

GRASS FUEL TYPE



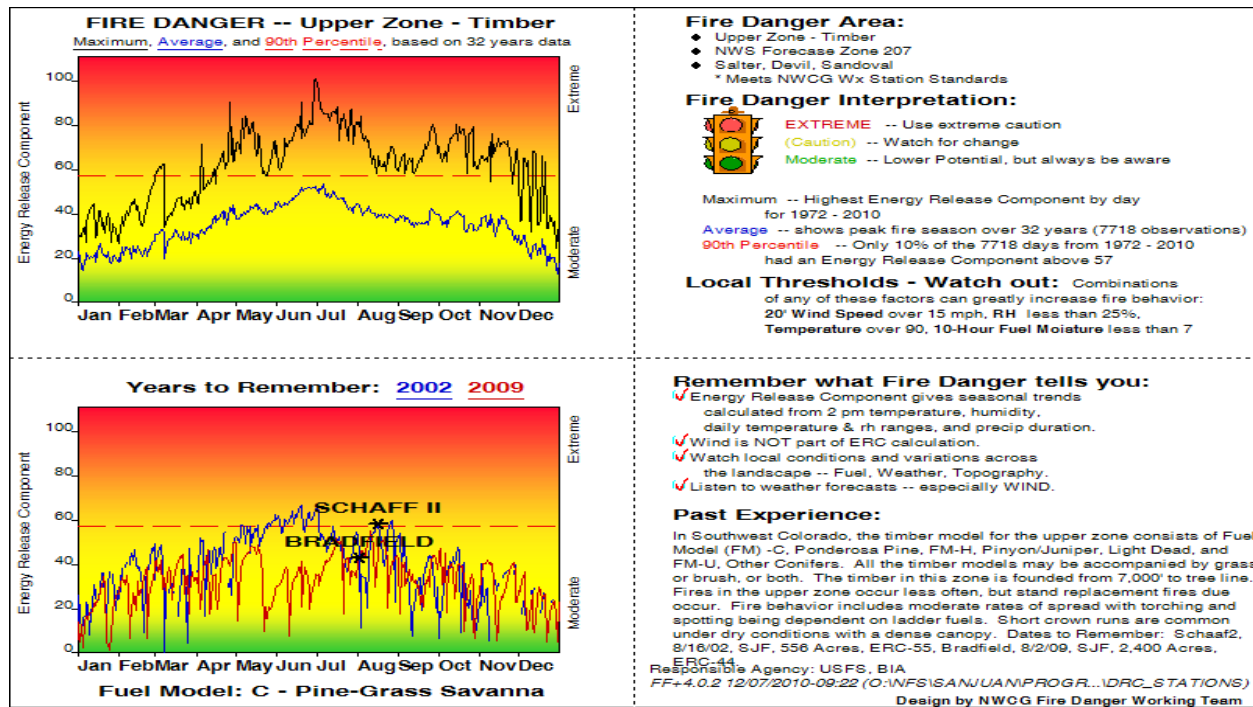
BRUSH FUEL TYPE



UPPER ZONE POCKET CARDS 2011/12



TIMBER FUEL TYPE



DURANGO INTERAGENCY DISPATCH CENTER FIRE DANGER OPERATING PLAN ZONE MAP

